July 19, 2017 Engagement Strategies In the MS/HS Math Classroom

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Frie 1 BOCFS

Partners sit on opposite sides of a barrier. Partner A gives directions to partner B to match what they have on their worksheet or game. Partner B tries to match what partner A has based on his/her directions.

CONTENT EXAMPLES

Match Mine

PURPOSE

The purpose of this activity is to allow students to communicate what is in front of them using appropriate vocabulary and understanding of a concept/topic. This activity could be used for inclusion, explore and discover, activate and engage, or organize and integrate information.

MODIFICATIONS

Students could be given a vocabulary list to help them describe the topic or concept. Students could also be given a template to fill in based on the instructions of their partner.

Students are given 9 squares mixed up with both questions and answers along the sides of the boxes. Students assemble a 3 by 3 puzzle in which each side matches the question with the correct answer.

CONTENT EXAMPLES

NINE SQUARE PUZZLE

PURPOSE

This organizing and integrating activity is a kinesthetic way for students to show what they recall about a topic. This strategy is used to assess what was learned about a concept in a different way.

MODIFICATIONS

To make it challenging for higher level learners, they will be given nine boxes with extraneous questions or answers. When they finish assembling the box these students will solve the questions on the outside or create questions for the answers on the outside and make their own boxes to border their original nine squares.

For struggling students, they will be given nine boxes without extraneous questions bordering the outside of the squares. Students will only have the questions with which they have the corresponding answers.

Students are given a set of cards with vocabulary, concepts, or problems. They are asked to sort the cards into categories based on the relationships among them.

CONTENT EXAMPLES

CORD SORt

PURPOSE

This explore and discover activity allows students to classify and organize their understanding of a particular concept or skill. It also allows the students to explain and describe their rationale for sorting.

MODIFICATIONS

The card sort can be open or closed. In an open word sort students determine the categories on their own. In a closed word sort, you include category tiles in the deck of cards.

The teacher poses a problem on paper to which there are multiple possible responses or solutions and provides the students with think time. Students take turns writing their responses or solutions on the paper and then passing the paper.

In a single round table, each student writes 1 short response.

In a continuous round table, each student takes their turn listing one example/solving one part and students keep going around the group until the teacher calls time.

In a simultaneous round table, every student is given a problem to work on for a given amount of time. When the teacher calls time, students rotate papers and continue where the student before left off. Continue the process until all of the problems have been solved.

CONTENT EXAMPLES

ROUNDtable

PURPOSE

This organizing and integrating activity allows students to work in teams. This is a knowledge building exercise that allows students to check their understanding as well as their teammates understanding of a particular topic. Students are sharing information and communicating with teammates.

MODIFICATIONS

If completing in teams is too overwhelming, have students do a RallyTable where they work in pairs instead of teams.

Students work both independently to determine 3 true statements and 1 false statement given a prompt by the teacher. They present their 4 statements in a TimedRoundRobin allowing their teammates to find the 1 false statement.

CONTENT EXAMPLES

FIND the FIB

PURPOSE

This organizing and integrating activity allows students to work independently and in teams. It requires the students to do error analysis as well as work on improving their social skills with turn taking and coming to a consensus.

MODIFICATIONS

The teacher can change the number of true to statements depending on the concept.

Students walk around the classroom and ask their classmates to respond to questions. The student who is listening may choose to write down responses to the questions but once the classmate is done responding, he or she initials the box of the question they responded to. The student then finds another classmate to answer another question and the process repeats.

CONTENT EXAMPLES

WALK AROUND SURYEY

PURPOSE

The purpose of this strategy is to activate and engage students in the learning. This is a knowledge building exercise that allows students who do not know the answers to all of the questions, to gain an understanding and those students who do know the answers have the opportunity to teach others.

MODIFICATIONS

Give students different color sheets of paper where they can only ask students who have the same color.

Students number off. Teacher poses a question or problem and allows think time. Students independently write their answers. Students then stand up and "put their heads together" showing their answers, discussing, and teaching each other. Once the group comes to consensus, they sit down. The teacher calls a number and that student from each group must answer the question.

CONTENT EXAMPLES

NUMBERED HEADS together

PURPOSE

This activity is great for organizing and integrating knowledge. Every student is accountable to know the answer to the question because the teacher could call any member of the group. Students who did not understand the question have the opportunity to learn and be coached by their teammates.

MODIFICATIONS

Having the groups heterogeneously grouped naturally differentiates this activity because students who did not understand the question have the opportunity to learn from their classmates who know the answer. The teacher can purposefully number the students so that they can call on specific students that they need to check for understanding with.

In this strategy, students play a card game to respond to questions and the roles rotate each turn. Each team receives a set of questions.

Student #1: holds the questions and says, pick a card any card

Student #2: chooses a card and reads the question aloud

Student #3: answers the question

Student #4: responds to the answer; if student is correct, praise, if student is incorrect, coach, if the question has no right or wrong answer paraphrase. At the end, praise the student for responding.

Roles rotate and process begins again

CONTENT EXAMPLES

FON-N-PICK

PURPOSE

This strategy can be used as an inclusion activity for students to get to know each other. It can be used to explore and discover a new concept or it could be used to organize and integrate new learning. All students are given an opportunity to participate in each role of the activity and are accountable for the learning.

MODIFICATIONS

Students could be homogeneously grouped and different questions could be given to the groups based on ability. For example, students who are struggling with the concept could be given questions requiring lower levels of Bloom's Taxonomy vs. students who know the concept could be asked tasks requiring higher levels of Bloom's Taxonomy.